

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings and versions of the claims.

1. **(Original)** A locking cap for a pipe end, the locking cap comprising a face plate and a plug portion, the face plate having a front surface and a rear surface, the plug portion having a front surface, a rear surface and a side surface, a slot extending longitudinally between the front surface and the rear surface and radially between the side surface and a relief opening defined within the plug portion, a channel defined through the plug portion along the slot, the plug portion connected to the face plate with the rear surface of the face plate arranged to substantially face the front surface of the plug portion, the plug portion sized and configured to be received by the pipe end with the side surface of the plug portion having a surface area generally coextensive with an inner contacted surface of the pipe end, the channel receiving a longitudinally translatable spreader member wherein at least one surface of the spreader member or the channel is tapered such that the spreader member and the channel cooperate to expand and retract the plug portion.

2. **(Original)** The locking cap of Claim 1 further comprising an actuator mechanism, the actuator mechanism having an actuator shaft which extends through the channel and is engaged with the spreader member such that as the actuator shaft rotates within the channel the spreader member translates within the channel.

3. **(Original)** The locking cap of Claim 2, wherein the actuator shaft has an actuator head portion, the actuator head portion being selectively engageable with a key head portion such that the key head portion selectively causes the actuator to rotate.

4. **(Original)** The locking cap of Claim 3, wherein the actuator head portion has a female pattern and the key head portion has a male pattern that is complementary to the female pattern.

5. **(Original)** The locking cap of Claim 4, wherein the female pattern is a cloverleaf consisting of seven apexes and eight wavy grooves interconnecting the seven apexes.

6. **(Original)** The locking cap of Claim 4, wherein the female pattern comprises at least five apexes.

7. **(Original)** The locking cap of Claim 1, wherein the plug portion is formed from brass.

8.-14. **(Cancelled)**

Appl. No. : 10/789,630
Filed : February 27, 2004

15. **(Currently Amended)** A locking cap for a pipe end comprising a face plate, the face plate having a front surface and at least two pins projecting from the front surface, the face plate having a back surface and being connected to a plug portion such that the back surface of the face plate is proximate a surface of the plug portion, at least a portion of the plug portion being capable of selective expansion and contraction to create a frictional interlock between the locking cap and the pipe end, the pins being connected to the plug to allow rotation of the plug but not to facilitate expansion or contraction of the plug.

16. **(Original)** The locking cap for a pipe end of Claim 15 wherein the pins are selectively engageable by a key element for effecting leveraged rotation of the locking cap relative to the pipe end.

17. **(Original)** The locking cap for a pipe end of Claim 16, wherein two pins each have center lines and the centerlines are positioned a first distance apart, and wherein the key element further comprises a handle having at least two holes which are the first distance apart on center.

18.-23. **(Cancelled)**

24. **(Currently Amended)** A locking cap key for locking and unlocking a locking cap, the key comprising a head and a handle, the head selectively engageable with a related structure on the locking cap and the handle being configured to plastically deform when a level of torque exceeds a predetermined level of torque, and wherein the key does not require a relief cut.

25. **(Original)** The locking cap key of Claim 24, wherein the predetermined level of torque exceeds that required to lock the locking cap in position.

26. **(Original)** The locking cap key of Claim 24, wherein the key assumes a permanently set spiral twist as a result of the plastic deformation.

27. **(Original)** The locking cap key of Claim 24, wherein the head has a raised pattern disposed on a distal tip of the head.

28. **(Original)** The locking cap key of Claim 27, wherein the related structure on the locking cap includes a recessed pattern that is complementary to the raised pattern.

29. **(Original)** The locking cap key of Claim 24, wherein the handle includes a hanging ring.

30. **(Original)** The locking cap key of Claim 24, wherein the key has a generally T shaped configuration comprising a narrow arm portion and a cross-member, the cross-member having at least one hole disposed therein.

Appl. No. : 10/789,630
Filed : February 27, 2004

31. (New) A locking cap for a pipe end, the locking cap comprising a face plate and a plug portion, the face plate having a front surface and a rear surface, the plug portion having a front surface, a rear surface and a side surface, a slot extending longitudinally between the front surface of the plug portion and the rear surface of the plug portion and radially between the side surface of the plug portion and a relief opening defined within the plug portion, a channel defined through the plug portion along the slot and positioned along the slot at a location between the relief opening and the side surface of the plug portion, the plug portion being connected to the face plate with the rear surface of the face plate arranged to substantially face the front surface of the plug portion, the plug portion being sized and configured to be received by the pipe end with the side surface of the plug portion having a surface area generally coextensive with an inner contacted surface of the pipe end, the channel receiving a longitudinally translatable spreader member wherein at least one surface of the spreader member or the channel is tapered such that the spreader member and the channel cooperate to expand and retract the plug portion.

32. (New) A locking cap for a pipe end, the locking cap comprising a face plate and a plug portion, the face plate having a front surface and a rear surface, the plug portion having a front surface, a rear surface and a side surface, a slot extending longitudinally between the front surface of the plug portion and the rear surface of the plug portion and radially between the side surface of the plug portion and a relief opening defined within the plug portion, a channel defined through the plug portion along the slot and radially displaced from the relief opening, the plug portion being connected to the face plate with the rear surface of the face plate arranged to substantially face the front surface of the plug portion, the plug portion sized and configured to be received by the pipe end with the side surface of the plug portion having a surface area generally coextensive with an inner contacted surface of the pipe end, the channel receiving a longitudinally translatable spreader member wherein at least one surface of the spreader member or the channel is tapered such that the spreader member and the channel cooperate to expand and retract the plug portion.

33. (New) A locking cap for a fire department connection, the fire department connection locking cap comprising a face plate and a plug portion, the face plate of the fire department connection locking cap having a front surface and a rear surface, the plug portion of the fire department connection locking cap having a front surface, a rear surface and a side surface, a slot extending longitudinally between the front surface and the rear surface and radially between the

Appl. No. : **10/789,630**
Filed : **February 27, 2004**

side surface and a relief opening defined within the plug portion, a channel defined through the plug portion along the slot, the plug portion connected to the face plate with the rear surface of the face plate arranged to substantially face the front surface of the plug portion, the plug portion of the fire department connection locking cap sized and configured to be received by the pipe end of the fire department connection with the side surface of the plug portion having a surface area generally coextensive with an inner contacted surface of the pipe end of the fire department connection, the channel receiving a longitudinally translatable spreader member wherein at least one surface of the spreader member or the channel is tapered such that the spreader member and the channel cooperate to expand and retract the plug portion.